Hello

I am excited to get started again after a terrific experience with you all in Boulder, CO. Thanks for the energizing start!

When designing curriculum it is important to know your audience and their needs so you can design in such a way that makes it meaningful for them.

Accommodating Multiple Learning Styles:
- ➢ Apply different learning activities

- ➢ Use both auditory and visual cues

- ➢ Conduct group projects

- ➢ Teach a lesson in several ways concurrently

Those of you in business training, think of this as a way to accommodate different learning styles of your employees. Everyone, please respond to the ideas and statements below:

Howard Gardner's Multiple Intelligence Theories.... As a precursor to guiding statements and questions for...

Readings - Multiple Approaches to Understanding, I would like to provide you with some links (and brief statements) to expand your understanding of Gardner and his growing list of Intelligences (eight going on nine).

Please be aware that many in education label students as having only one or two principal intelligences; such acts are at odds with Gardner's Theories. Gardner's fundamental premise is that one should be aware of these varied processes, that occur in all of us, so that they can be used as "entry points" to facilitate the learning process. They are not labels to categorize "learners" which limits the environment of learning. His goal is promoting the learner's understanding. Awareness of the intelligences allows the design to increase the probabilities of developing understanding.

1. Verbal-Linguistic Intelligence
2. Logical-Mathematical Intelligence
3. Kinesthetic Intelligence
4. Visual-Spatial Intelligence
5. Musical Intelligence
6. Interpersonal Intelligence
7. Intrapersonal Intelligence
8. Naturalist Intelligence
9. Existential Intelligence (Proposed)

An Interview With Howard Gardner by Ronnie Durie - New Horizons for Learning Copyright © 1997, 1998 Zephyr Press

1.MI cannot be an educational end in itself. MI is, rather, a powerful tool that can help us to achieve educational ends more effectively. From my vantage point, Ml is most useful for two educational ends: It allows us to plan educational programs that will enable children to realize desired end states (for example, the musician, the scientist, the civic minded person)

2.It helps us to reach more children who are trying to understand important theories and concepts in the disciplines.

So long as materials are taught and assessed in only one way, we will only reach a certain kind of child. But everything can be taught in several ways. The more that we can match youngsters to congenial approaches of teaching, learning, and assessing, the more likely it is that those youngsters will achieve educational success.

The Understanding Pathway by Marge Scherer Educational Leadership Volume 57 Number 3 November 1999

The crucial tension between "constructivism" and "behaviorism" has to do with the view of learning that is embraced. In a behaviorist class, one focuses on the answers desired and tries to shape responses until they resemble a prototype. What goes on inside the head, if anything, is irrelevant. In a constructivist classroom, students continually try out ideas and practices for themselves and see where they work and where they prove inadequate. The models that an individual constructs in his or her mind are crucial to understanding or nonunderstanding. Certainly, one can make use of standardized tests—especially if by standardized one means tests that embrace a common standard. I am not a fan of short-answer tests because they can't really assess understanding. The world does not come with four choices, the last one being "none of the above."

How Technology Enhances Howard Gardner's Eight Intelligences Introduction by Dave Keefe for Contribution by Dee Dickinson

Provides specifics as to how tech can enhance the integration of the eight intelligences

Truth, Beauty, and Goodness: Education for All Human Beings A Talk With Howard Gardner   by John Brockman, Edge Foundation, Inc.

I want people at the end of their education to understand the world in ways that they couldn't have understood it before their education. In speaking of the world I mean the physical world, the biological world, the social world — their own world, their personal world as well as the broader social and cultural terrain. I

believe that these are questions that every human being is interested in from a very young age. They're questions which kids ask all the time: who am I, where do I come from, what's this made out of, what's going to happen to me, why do people fight, why do they hate? Is there a higher power? Questions like that — they don't usually ask them in their words, they ask them in their play, in their stories, the myths they like to listen to and so on.

These are also the questions that historically have been looked at in religion, philosophy, science. While it's great for people to ask these questions on their own, and to make use of their own experience, it's crazy for people not to take advantage of the other attempts to answer those questions over the millennia. And the disciplines represent to me the most concerted efforts to provide answers to those questions.

If you asked me should people be studying physics, or chemistry or biology or geology in high school, I would say it doesn't make the slightest bit of difference. They should study some topics, of course, but the choice is wide open — I'm interested in depth, not breadth. I'm not talking about college education; I'm just taking on K to 12. What I want when kids get through a K to 12 education is for them to have a sense of what their society thinks is true, beautiful and good; false, ugly and evil; how to think about it and how to act on the basis of your thoughts.

What I'm arguing is that if you decide which things are important and which things are worth spending time on, like evolution and the music of Mozart, then you can approach such a topic in many different ways. Multiple intelligences can be useful in three quite interesting ways in dealing with important topics that are worth spending time on.

- First of all, by providing what I call entry points. Any topic that's worth spending time on can be approached in many different ways.
- Second of all by providing powerful analogies or metaphors for what you're trying to understand. Again we don't know if there are seven analogies, to match each intelligence, for anything you want us to understand, but there is always more than one analogy or metaphor.
- Third of all, by providing what I call different model languages for understanding a concept.

President Clinton said we want to have every kid reading by third grade. I say, we know how to teach kids how to read; the problem is kids don't read. Literacy's have to be a means to get to the disciplines. The disciplines are the handmaidens to help us come up with reasonable first answers to all these essential questions. We can't do it on our own. But there are only three or four basic disciplines that we should worry about before college. One, how to think scientifically. Most people in America still believe in astrology; they're clue less of how to make sense of an experiment. They don't know what a hypothesis is. Two, they need to know something about the history of their country, something about the background, maybe a little about the rest of the world too. But again people don't know how historically; they think the Punic Wars occurred about the same time as the Truman administration. They don't understand the ways in

which we are like and unlike other cultures, other historical eras; they tend to think the past was all different and all bad, the present is all good, they think history is progress — they're filled with misconceptions. So you need to know something about history. Three, people need to know something about how to make sense of works of art, because those are treasures of the culture, and four, they have to know something about mathematics because it's the language of science, and they're going to be stuck if they don't know. The particular books they read, the particular science they learn, are completely irrelevant until you get to college. You're picking up some tools so you can enter into the conversations of the centuries on these and other important questions.

On Teaching for Understanding: A Conversation with Howard Gardner by Ron Brandt, Educational Leadership, Volume 50 Number 7 April 1993
A focus on Authentic Learning
Question by Ron Brandt: Would you say that most students don't really understand most of what they've been taught?

Gardner: I'm afraid they don't. All the evidence I can find suggests that's the case. Most schools have fallen into a pattern of giving kids exercises and drills that result in their getting answers on tests that look like understanding. It's what I call the "correct answer compromise": students read a text, they take a test, and everybody agrees that if they say a certain thing it'll be counted as understanding. But the findings of cognitive research over the past 20–30 years are really quite compelling: students do not understand, in the most basic sense of that term.
That is, they lack the capacity to take knowledge learned in one setting and apply it appropriately in a different setting. Study after study has found that, by and large, even the best students in the best schools can't do that.